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ABSTRACT

A study identified workplace know-how skills and characteristics that employers in Kalamazoo and St. Joseph counties in Michigan feel workers need to succeed and be productive. Employer input was obtained in fall 1993 at 12 focus group meetings during which a total of 103 of 192 invited local employers (a 53.6% attendance rate) completed individual workplace know-how skills surveys and then compiled "master lists" of know-how skills and prioritized the identified skills through a voting process. The following 23 basic academic and interpersonal skills, personal characteristics, task achievement competencies, and behaviors were identified on at least 2 consensus lists and received at least 10 votes: basic reading, basic verbal/speaking, written, listening, and math skills; honesty/integrity; responsibility/reliability; willingness to learn throughout life; initiative, motivation; attendance; punctuality; flexibility; problem solving skills; common sense; time management; consistently accurate/conscious of quality; understands and embraces mission and the "big picture"; Taking ownership; teamwork skills; interpersonal skills; works well with coworkers; customer orientation; interpersonal skills; and respects diversity. (Appendixes contain the following: survey instrument, taxonomy of workplace know-how skills, and focus group consensus lists. Contains fourteen tables and 21 references.) (MN)

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ED 385 712

The Workplace Know-How Skills Needed to be Productive

Technical Report

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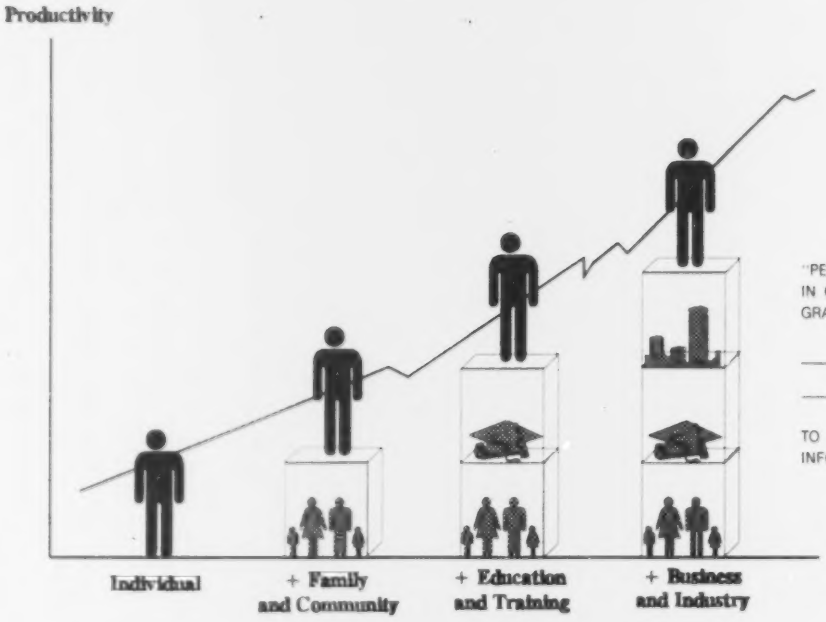

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for
Kalamazoo County Education for Employment Outcomes Task Force

May 1994

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ABSTRACT

This paper reports the results of a study to identify the workplace know-how skills and characteristics that employers in Kalamazoo and St. Joseph Counties feel are necessary for workers to possess in order to succeed and be productive. To gather employer input, the Education for Employment Outcomes Task Force convened a dozen small-group meetings of local employers in Fall 1993.

At each meeting, the participants first independently listed all of the workplace know-how skills and characteristics that they felt contributed to a worker's productivity. They then worked together to compile a "master list" of know-how skills for the group. After the group's compilation was completed, the participants prioritized the skills through a voting process. Group consensus was then achieved by extracting the top "vote getters."

Analyses of the data gathered across all the groups led to the identification of the "most important" skills. The following twenty-three skills or characteristics, not listed in any particular order, emerged as primary:

Basic reading skills
Basic verbal skills
Writing skills
Listening
Basic math (+,-,x,/)
Honesty; integrity
Responsibility
Willingness to learn
Initiative; motivation
Attendance
Punctuality
Flexibility
Problem solving skills
Common sense
Time management
Consistently accurate
Understands and embraces organization's mission
Taking ownership
Teamwork skills
Works well with co-workers
Customer-oriented
Interpersonal skills
Respects diversity

In addition to identifying the most important workplace know-how skills, employers considered the issue of how to measure these skills and what standards to use to evaluate workers. Employers felt that some items could be easily measured through formal tests or assessments, whereas other items were more difficult, if not impossible, to measure. In between these extremes were skills and characteristics that could be demonstrated by particular actions or assessed by direct measurement of productivity. Minimum standards for the skills and characteristics often differed across employers. However there was wide agreement about certain standards.

The Task Force intends to use this study as a basis for working with education and training providers at all levels—K-12 systems, post-secondary institutions, and second-chance trainers—to get workplace know-how skills imparted into curricula and instructional delivery and for working with business and industry to become more involved in articulating their needs and standards and assisting education and training providers directly.

FOREWORD

About the Task Force . . .

Early in 1993, a coalition of local community organizations was formed to accomplish a common goal—assessing the skill needs of employers in the Kalamazoo and St. Joseph County labor market and transmitting the results to institutions preparing individuals for the labor market. Operating under the umbrella of the Kalamazoo County Education for Employment (EFE) Consortium, the group named itself the "EFE Outcomes Task Force."

The purpose and goals of the Task Force are summed up in its mission statement, which follows:

> **The mission of the Education for Employment Outcomes Task Force is to identify and communicate the workplace know-how skills expected by employers in the local labor market and to devise implementation strategies to help potential labor market entrants develop these skills through education and training.**

This report documents a study conducted by the Task Force to accomplish one of its goals: identification of **workplace know-how skills**.

The members of the EFE Task Force for 1993-94 are listed on the inside back cover of this document.

The data collection and development of this report were made possible through a grant awarded by the Michigan State Board of Education under the Job Training Partnership Act (JTPA) 8% State Education Coordination and Grants Program. The EFE Outcomes Task Force gratefully acknowledges the Kalamazoo-St. Joseph Private Industry Council, and the Kalamazoo-St. Joseph Designated Education Planning Entity for their generous support. The opinions and views expressed do not necessarily represent those of the funding agencies.

About the Participating Employers . . .

The EFE Outcomes Task Force also gratefully acknowledges the participation of the following employers in the survey and focus groups that the task force conducted:

Ms. Pat Adams Stryker Center	Mr. Patrick Allkins Western Temporary Services	Ms. Colleen Ball Target Stores
Mr. Pat Aldworth Humphrey Products	Mr. Tony Appleyard St. Joseph County	Ms. Janet Berghorst Kalamazoo College
Mr. Dave Allen Michigan Gas Co.	Ms. Nancy Augustitus Charles Services	Ms. Joyce Berns IBA Health & Life Assur. Co.

Mr. Rob Bertrand
Bee Clean Bldg. Svcs

Ms. Helen Bogatchow
AAMCO Transmission Center

Ms. Ann Marie Bouchelle
Career Management
Employment Services

Ms. Mary Buday
Business Insight

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Borgess Medical Center

Ms. Kathy Chapman
Standard Federal Bank

Ms. Phyllis Cleveland
Kalamazoo Township Offices

Ms. Ginny Colvin
Maple Hill Mall

Ms. Suzanne Cook
TS Print Centers

Ms. Lynn Cowart
Parchment Schools

Mr. Ron Cross
Alumilite Co.

Mr. David Davey
Goodwill Industries of
Southwestern Michigan

Mr. Phil Davis
Modern Shoe Repair, Inc.

Ms. Suzette Deaux
Sturgis-Young Civic Center

Ms. Cheryl Deboer
OneWay Products

Mr. Jim Devlin
Green Bay Packaging

Mr. Jack Devries
Burroughs

Mr. Rich Donia
Certified Auto Repair

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H&H Painting Co.

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Kalamazoo Plastics Co.

Mr. William Haug
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Schools

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Ms. Jean Maile
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Ms. Tina Mattson
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Ms. June McLaughlin
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U.S. Postal Service

Mr. Tim Miller
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Ms. Lisa Minott
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Ms. Jill Moreland
Arch Workshop Inc.

Mr. Jack Neal
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Ms. Lyda Nickell
E.L. Nickell Co.

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McKercher Rehab Center

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Mr. Thomas Thomasma
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THE WORKPLACE KNOW-HOW SKILLS NEEDED TO SUCCEED IN THE KALAMAZOO AND ST. JOSEPH COUNTY LABOR MARKET

1. Description of Study

Introduction

One of the goals of the Education for Employment (EFE) Outcomes Task Force is to identify the **workplace know-how skills** expected of entrants to the local labor market. The viewpoint of the Task Force is that a worker's productivity depends on the constellation of skills and knowledge that the worker possesses as well as on the characteristics of the workplace and duties that constitute the individual's job. Each worker is different and possesses different levels and types of skills and abilities. Skills and knowledge may be arrayed along a spectrum: on one end are very specific technical skills such as operating a particular piece of equipment at a particular location and at the other end are specific facts such as the name of the Emperor of Rome in 100 A.D.

Workplace know-how skills lay in the middle of this spectrum. They are neither specific technical skills nor specific factual knowledge. In fact, they are prerequisite to both. To accomplish technical proficiency or to achieve particular academic standards requires competency in basic reading, basic communication, basic mathematics, attendance and punctuality habits, problem solving, time management and organization skills, and so forth. These are workplace know-how skills.[1]

The EFE Outcomes Task Force has conducted a study to identify the workplace know-how skills that employers in Kalamazoo and St. Joseph Counties feel are necessary for labor market entrants to possess in order to succeed. The study defines labor market entrants to be students leaving formal educational programs such as a public school system or a post-secondary institution; individuals trained in a "second chance" program (e.g., a Job Training Partnership Act (JTPA) program, a vocational rehabilitation program, or a welfare-to-work program); or any other adults/young people looking to become gainfully employed.

Background

Several studies have been conducted at the national and state level that examine generic workplace skills. The (U.S. Department of Labor) Secretary's Commission on Achieving Necessary Skills (SCANS) was charged with examining the demands of the workplace and assessing whether young people are capable of meeting those demands as well as advising the Secretary of Labor on the level of skills required to enter employment.

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[1] Note that they are also **learning know-how skills**.

Members of the EFE Outcomes Task Force reviewed many of the national studies and decided to use findings from the SCANS commission as a general basis for the task force's deliberations. (Indeed, the task force adopted the phrase "workplace know-how skills" from SCANS). In particular, SCANS suggests that "workplace know-how" is made up of five competencies and a three-part foundation of skills and personal qualities:

- **Foundation**

Basic Skills: reading, writing, arithmetic and mathematics, speaking and listening

Thinking Skills: thinking creatively, making decisions, solving problems, seeing things in the mind's eye, knowing how to learn, and reasoning

Personal Qualities: individual responsibility, self-esteem, sociability, self-management, and integrity

- **Workplace Competencies**

Resources: allocating time, materials, space, and staff

Interpersonal Skills: working on teams, teaching others, serving customers, leading, negotiating, and working well with people from culturally diverse backgrounds

Information: acquiring and evaluating data, organizing and maintaining files, interpreting and communicating and using computers to process information

Systems: understanding social, organizational, and technological systems, monitoring and correcting performance, and designing or improving systems

Technology: selecting equipment and tools, applying technology to specific tasks and maintaining and troubleshooting technologies

Other national studies include *Investing in People: A Strategy to Address America's Workforce Crisis*, by the Commission on Workforce Quality and Labor Market Efficiency; *America's Choice: High Skills or Low Wages!*, by the Commission on the Skills of the American Workforce; and *Work Place Basics: The Skills Employers Want*, by Carnevale et al. (1992).[2]

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[2] Weber (1992) reviews these national studies.

Several states have commissioned studies of workplace skills and moved toward the implementation of programs to include these skills in school curricula. Table 1 (taken from Weber, 1992) provides a representative list of such studies. Although not listed in table 1, Michigan may be considered at the forefront of state initiatives. Governor Blanchard commissioned an Employability Skills Task Force in 1987 that developed the Employability Skills Profile displayed in table 2. In its first months of operation, the Task Force decided that the literature and employer feedback suggested that employability skills could be clustered into Academic Skills, Personal Management Skills, and Teamwork Skills.

Table 1
A SAMPLING OF CRITICAL STUDENT/WORKER OUTCOMES IDENTIFIED IN STATE REPORTS

SOURCE	STUDENT/WORKER SKILLS IDENTIFIED
California - *Employability Competency System* (Eguez, Huie, and Rickard 1991)	Employability Competencies: reading, math, communication, and critical thinking measured via tests composed of items that address these skills within functional (occupational and "real life") contexts
Idaho - *Preparing for Idaho's Future* (Berman et al. 1991)	New Basics: reading, writing, math, science, computing, communication, problem solving, accessing and using information, global awareness Can-Do Attitude: high self-esteem, taking responsibility, persistence, high expectations Collaborative Ability: teamwork, negotiation skills, understanding democracy Adaptability: toleration for change, generalists skills and attitudes, learning to learn
Illinois - *Toward a World-Class Workforce* (Illinois Council on Vocational Education 1991)	Business and Labor's Nine Basic Skills: (1) reading, writing, and math skills; (2) communication skills, including listening and oral communication; (3) employability skills including work attitudes and responsibilities, and knowing how a business operates; (4) critical thinking, problem solving, decision making; (5) group and teamwork skills including interpersonal and social relations; (6) self-esteem, goal setting, and personal and career development; (7) keyboarding and computer literacy skills; (8) leadership skills and improving organizational effectiveness; and (9) basic concepts of technology systems

Table 1
(Continued)

SOURCE	STUDENT/WORKER SKILLS IDENTIFIED
Indiana - *Executive Report of the Jobs for Indiana's Future* (Jobs for the Future 1989)	"New Basic Skills" (which parallel those posited by Carnevale, Gainer, and Meltzer 1988): Learning to learn; competence in reading, writing, and computation; communication—oral and listening skills; problem-solving, creative thinking, personal management skills—self-esteem, motivation/goal setting, employability/career development; group effectiveness skills—interpersonal, teamwork, negotiation; influence skills—organizational effectiveness and leadership
Missouri - *Jobs without People* (Governor's Advisory Council on Literacy 1989)	Basic Skills: reading, writing, counting Life Skills: understanding signs, labels, instructions, and directions Job Skills: critical thinking, decision making, adapting to change
North Dakota - *Maximizing Potential: For High-Quality Participation in the New Work Force* (North Dakota Council on Vocational Education 1989)	Applied Academic Skills: reading, writing, and computation skills that reflect their actual use on the job and/or in situations that simulate specific job tasks Work Force Basic Skills: learning to learn, listening, speaking, problem solving, creative thinking, personal and career development, self-esteem, goal setting/motivation, teamwork, interpersonal skills, negotiation, leadership, and organizational effectiveness Basic Living Skills: individual, child, and family development; consumer and resource management Technological Literacy: technological awareness and keyboarding and computer use skills
Ohio - *Ohio's Future at Work* (Ohio Department of Education 1990)	Occupational Skills: those skills involving the technical abilities to perform required workplace tasks, including problem solving and critical thinking Academic Skills: those core competencies (including science, mathematics and English/language) necessary to prepare for and secure a career, facilitate lifelong learning, and ensure success in a global economy Employability Skills: those capacities, attitudes, and values required to enter, compete, and remain successfully in the work force including self-employment. These skills include, but are not limited to, decision making, critical thinking, teamwork, following directions, willingness to work; and job search, application and self-marketing skills

Table 1
(Continued)

SOURCE	STUDENT/WORKER SKILLS IDENTIFIED
Oregon - *Oregon Educational Act for the 21st Century* (Oregon Department of Education 1991)	Student Skills: reading, writing, reasoning, information retrieval, problem solving, listening, speaking, critical thinking, working effectively alone and as part of a group, and knowledge of social studies, foreign language, humanities, the visual, performing, and literary arts, advanced mathematics and sciences
Pennsylvania - *A State Prepared: Developing Pennsylvania's Work Force* (Pennsylvania Economic Development Partnership 1991)	Basic Skills: read and comprehend policy and instructional manuals as well as technical materials; write sentences with correct form, spelling, punctuation, and grammar; recognize and correct errors in written materials; add, subtract, multiply, and divide; work with fractions and decimals; explain ideas clearly; and ask and answer questions and follow verbal directions Attitudes: learn, be flexible, and respond quickly to change; learn and perform multiple tasks; analyze and choose from a variety of options, identify problems, recognize alternatives, and select the most appropriate alternative; operate independently after an appropriate training period; work cooperatively with people of different personalities, race, sex, across different authority levels, and organizational divisions; and be punctual, dependable, and show pride and enthusiasm in performing well Technical Skills: ability to measure; type with accuracy and speed; work accurately with computers and computerized programs

NOTE: No claim is made regarding the "representativeness" of the set of reports listed in this table. They are meant to be only illustrative. (Note from original source).

Source: Weber 1992, Table 2.

In 1989, the Michigan Employability Skills Task Force attempted to validate the profile they had developed through a large-scale survey of Michigan employers (see Mehrens, 1989). The approach that the survey took was to ask employers to rate the importance of 86 different skills, behaviors, or attitudes "that employers seek in people they hire for jobs—regardless of job level (e.g., entry vs. advanced) or type of job (e.g., technical vs. non-technical," (quotation taken directly from the survey form, with emphasis added.) These 86 skills were classified as being either academic, personal management, or teamwork skills and the scale that respondents used indicated that the skill was "critical," "highly needed (but not critical)," "somewhat needed (but not required)," or "not needed." The survey was mailed to 7,500 Michigan employers and was completed by about 2,750. Table 3 lists the 19 skills that were rated by the employers as being the most critical.

Table 2
EMPLOYABILITY SKILLS PROFILE

Three Categories of skills will be required of Michigan workers in the future:

ACADEMIC SKILLS	PERSONAL MANAGEMENT SKILLS	TEAMWORK SKILLS
(Those skills which provide the basic foundation necessary for a person to get, keep, and progress on a job)	(Those skills related to developing the attitudes and behaviors required to get, keep, and progress on a job)	(Those skills needed to work with others on a job)
MICHIGAN EMPLOYERS WANT A PERSON WHO CAN:	MICHIGAN EMPLOYERS WANT A PERSON WHO CAN:	MICHIGAN EMPLOYERS WANT A PERSON WHO CAN:
• Understand spoken language and speak in the language in which business is conducted.	• Identify personal job-related interests, strengths, options and opportunities.	• Identify with the goals, norms, values, customs and culture of the group.
• Read written materials (including graphs, charts and displays).	• Demonstrate personal values and ethics in the workplace (e.g., honesty, fairness, and respect for others).	• Communicate with all members of a group.
• Write in the language in which business is conducted.	• Exercise a sense of responsibility.	• Show sensitivity to the thoughts and opinions of others in a group.
• Understand and solve problems involving basic arithmetic and use the results.	• Demonstrate self control.	• Use a team approach to identify problems and devise solutions to get a job done.
• Use the tools and equipment necessary to get a job done.	• Show pride in one's work.	• Exercise "give and take" to achieve group results.
• Access and use specialized knowledge when necessary (e.g., the sciences or skilled trades) to get a job done.	• Be enthusiastic about the work to be done.	• Function in changing work-settings and in changing groups.
• Think and act logically by using the steps of the Scientific Method (i.e., identify problems, collect information, form opinions and draw conclusions).	• Follow written or verbal directions.	• Determine when to be a leader or a follower depending upon what is necessary to get a job done.
	• Learn new skills and ways of doing things.	• Show sensitivity to the needs to women and ethnic and racial minorities.
	• Identify and suggest new ideas for getting a job done.	• Be loyal to a group.
	• Be a leader or a follower depending upon what is necessary to get a job done.	

Source: Michigan Employability Skills Profile.

Table 3
MOST CRITICAL SKILLS FROM MICHIGAN EMPLOYABILITY SKILLS EMPLOYERS' SURVEY
(Skills listed in rank-order)

Rank	Item	Area	Survey Item No.
1	Be free from substance abuse	Personal Management	66
2	Demonstrate honesty and integrity	Personal Management	57
3	Pay attention to the person speaking (listening skill)	Academic	1
4	Follow directions given verbally (listening skill)	Academic	3
5	Show respect for others	Personal Management	54
6	Show pride in one's work	Personal Management	55
7	Punctual and in attendance	Personal Management	58
8	Ask questions to clarify understanding (listening skill)	Academic	2
9	Show enthusiasm for work	Personal Management	56
10	Work productively with minimal supervision	Personal Management	67
11	Answer questions accurately (verbal)	Academic	4
12	Read simple instructions	Academic	9
13	Show initiative	Personal Management	60
14	Meet or exceed work requirements (quality)	Personal Management	61
15	Complete tasks under stress	Personal Management	62
16	Demonstrate self-control	Personal Management	64
17	Represent organization positively	Teamwork	75
18	Follow organizational rules, etc.	Teamwork	76
19	Cooperate with others	Teamwork	84

Source: Mehrens (1989), tables 3a and 3b.

Whereas the Michigan Employability Task Force has been disbanded and another administration has taken the reins of state government, the Employability Skills Profile continues to influence state policy. Michigan Public Act 148 of 1992 requires high school students to develop achievement portfolios and the Michigan Department of Education has developed a guide for assessing the employability skills displayed in the portfolios that ties directly to the Employability Skills Profile. (Michigan State Board of Education 1993).

Several recent initiatives at the local level have also examined workplace employability skills. In February 1992, a planning team for the Loy Norrix Knights of the Future project conducted an employer survey. The purposes of this survey were threefold: (1) to give information to the community about the process for educational change at Loy Norrix High School, (2) to find out what employers expect of high school graduates when they employ them, what skills and qualities are most important, and (3) to find out how many employers are involved in public education. With respect to the second purpose, the planning committee reports:

Employers rated the importance of dependability, work ethic, ability to follow directions, oral communication and motivation the highest. The satisfaction level in all categories fell in the "fair" range. The difference between the importance level and satisfaction level was the greatest in the categories of dependability, work ethic, motivation and written communication. (Loy Norrix Milestone Team #1 1992, p. 1).

A symposium that brought together several dozen chief executive officers of Kalamazoo County businesses and several dozen individuals from educational organizations was held in March 1993. Table 4 provides a compilation of the results of an exercise done by the participants in the CEO Symposium. The businesspersons and educators were asked to list the ten entry-level skill, behaviors, and/or competencies that employers are looking for in potential employees. Note that no attempt was made to refine or set priorities among these skills.

In 1993, the Kalamazoo Chamber of Commerce and the Kalamazoo CEO Council facilitated the formation of a Quality Council. The mission of this council is "To create an environment which will allow Kalamazoo Valley organizations to achieve world class performance." Underneath the umbrella structure of the Quality Council are councils for seven broad economic sectors. Analysis of the planning documents for these seven (sub)-councils shows that all of them place some type of employability skill development as a high priority action item. (See Quality Council 1993).

A final local initiative of note is the development of exit outcomes by the Kalamazoo Public Schools (KPS), (Vision 2000, 1993). The process that KPS has followed in developing these outcomes included considerable community input and the outcomes that were included in the draft materials include many workplace know-how skills.

Thus it can be seen that the EFE Outcomes Task Force had considerable material from which to build its study. Rather than to re-discover the findings from previous work, the Task Force decided that its major contribution would be to validate, for educational institutions and training programs, these findings and to set priorities among workplace know-how skills and standards that employers apply to these skills.

Basic Approach

The task force used a nominal group technique to identify the "most important" workplace know-how skills expected by employers. A dozen small-group meetings were convened between mid-November 1993 and mid-January 1994. Each meeting, attended by approximately 10-12 employers, focused on a particular sector of the local economy. This was important in order to see whether employers in different sectors of the economy were interested in different workplace know-how skills. Did retailers want skills that differ from skills desired by manufacturers, for instance? Did the health care industry value skills that are different from those most valued by public sector employers?

Table 4
LIST TEN ENTRY LEVEL SKILLS, BEHAVIORS AND/OR COMPETENCIES EMPLOYERS ARE LOOKING FOR IN POTENTIAL EMPLOYEES

Entry Level Skills	Behaviors	Competencies
Critical thinking (technical reading, logic)	Commitment to quality	Communications (verbal and written)
Math computations (numbers and symbols)	Sensitivity	Speaking and listening skills
Statistics, probability and logic	Creativity (expression thereof)	Problem solving
Keyboarding	Dependability	Follow written and/or verbal directions
Reading for comprehension, information and analysis	Positive attitude (self esteem)	Decision making
Statistical processing	Maintaining satisfying personal life	Learning to learn
Writing	Common sense	Plan for and embrace change for improvement
Applied math	Self discipline/direction (setting priorities)	Transfer knowledge between disciplines and people
Analytical skills	Creative producer	Global community awareness
Basic computer skills	Innovative thinker	Understanding need to recognize value of customer
Problem solving/brainstorming	Discriminating consumer	Finances (how businesses make money)
Remedial math	Interpersonal skills	Measurement systems
Transferability of skills	Team player (group learning)	Behavior systems
Relevant technical skills	Work ethic (trustworthy and honest)	Organizational skills
Math, science and language skills	Flexible and adaptable	Time management
Basic employability Skills (ethics, attendance, dedication, drug free)	Ability to learn and change	Importance of setting and meeting goals and deadlines
	Desire to work	Self-directed learner
	Self-marketing (personal pride)	Business awareness
	Leadership (enterprising attitude)	Cause and effect of actions
	Agenda builder	Conflict resolution
	Motivated	Future thinking
	Work on own (initiative)	Ethics-integrity
	Initiative	Quality producer
	Organization	Sensitivity to cultural diversity
	Sense of humor	Disagree in peace (conflict resolution)
	Work with diverse backgrounds	Group problem solving—next level
	Risk taker	Implement and integrate with all programs
	Respect for authority (understand law/rules and why they are there)	
	Understanding the value of work	
	Problem solving	
	Self directed - personal mastery	
	Open minded	
	Focus on task at hand	
	Integrity for standard	

Source: CEO Symposium.

The sectors examined were as follows:

- Retail
- Services
- Health
- Nonprofit Organizations
- Education
- Small Manufacturing
- Large Manufacturing
- Government/Public Sector

Many of the employers who attended the focus groups were nominated by members of the EFE Outcomes Task Force. The members of the Task Force were asked for suggestions about individuals who might be in a position of hiring and/or evaluating workers' productivity and who were likely to be interested in participating in the groups. In addition, the process of identifying and inviting individuals cascaded to include many other employers. As members of the Task Force invited individuals to attend the focus groups, the individuals often recommended other employers who they felt might be interested in participating.

A total of 192 individuals were invited and a total of 103 participated (53.6%). The coverage by sector and by county (Kalamazoo or St. Joseph) is given in table 5. Note that attendance was particularly high for Government, Small Manufacturing, and Services; particularly low for Large Manufacturing and Education. As might be expected, given the distance, attendance rates were lower for St. Joseph County businesses for most sectors.

Table 5
NUMBER OF INDIVIDUALS WHO WERE INVITED AND WHO ATTENDED FOCUS GROUPS, BY COUNTY AND BY SECTOR

Sector	Participants/ Invitees	Percentage Participated	Kalamazoo: Participants/Invitees	St. Joseph: Participants/Invitees
Retail	15 / 28	53.6%	14 / 21	1 / 7
Services	26 / 39	66.7	21 / 33	5 / 6
Health	13 / 24	54.2	12 / 20	1 / 4
Nonprofits	11 / 24	45.8	10 / 21	1 / 3
Education	8 / 21	38.1	7 / 17	1 / 4
Small Mfg.	16 / 24	66.7	13 / 19	3 / 5
Large Mfg.	4 / 18	22.2	4 / 13	0 / 5
Government	10 / 14	71.4	7 / 9	3 / 5
TOTAL	103 / 192	53.6%	88 / 153 (57.5%)	15 / 39 (38.5%)

Table 6 provides summary information about the individuals who attended the focus groups. The employment sizes of the participants' organizations showed considerable variation. About one-third of the organizations employed fewer than 50 individuals and a little over one-quarter employed more than 250 individuals. The remaining organizations employed between 50 and 250 workers. This distribution differs from the size distribution of firms in the two counties. It underrepresents smaller employers and overrepresents the largest employing organizations.[3]

More than half of the participants were owners or management staff; about one-fifth were Human Resource Department (HRD) managers or staffpersons; and the remainder were supervisors or other staff members. There was an equal split between men and women and approximately 9 percent of the participants identified themselves as members of a minority ethnicity (mostly African American). The age distribution of the participants showed that over two-thirds of them were between 35-54 and about one-fifth were in the 25-34 range.

The intent of the process that was followed in each meeting was to consider workplace know-how skills from a very broad perspective and to funnel the discussion to more specificity. First, the meeting participants independently listed all of the workplace know-how skills that they felt contributed to a worker's productivity in their organizations. A copy of the form that was used for this activity comprises appendix A. Next, the participants worked together to compile a "master list" of know-how skills for the group. After the group's compilation was completed, the participants prioritized the skills by voting. Consensus was then achieved by extracting the top "vote getters."

The analyses that are presented in this report will follow this sequencing. The next section of the report discusses the results of the individual listing of skills. Next, the "master lists" will be compared and contrasted across the groups. Next, the skills that received votes as being among the most important and the consensus lists of the most significant of the

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[3] The U.S. Department of Commerce report *1990 County Business Patterns* provides the following size distribution for establishments in Kalamazoo County:

Employment Size	Number of Establishments	Percentage of Establishments
< 10	3675	68.5%
10 - 19	826	15.4
20 - 49	536	10.0
50 - 99	181	3.4
100 - 249	109	2.0
250 - 499	26	0.5
500 +	14	0.3

There are many reasons why the task force data is discrepant with these data. First of all, these data are on an establish basis, and the study's data is on a firm level. Second, the *County Business Patterns* data excludes government, railroad, and self-employed workers and it furthermore pertains to Kalamazoo County only.

Table 6
CHARACTERISTICS OF FOCUS GROUP PARTICIPANTS

Characteristic	Number of Participants	Percentage of Participants
Employment size		
< 10	11	10.7%
10 - 19	8	7.8
20 - 49	16	15.5
50 - 99	18	17.5
100 - 249	22	21.4
250 - 499	15	14.6
500 +	12	11.7
Not reported (NR)	1	1.0
Position in firm		
Mgmt., exc. HRD	58	56.3%
HRD mgr. or staff	21	20.4
Supervisor	8	7.8
Other	11	10.7
NR, mult. responses	2	1.9
Respons. for hires/yr.		
0	5	4.9%
1 - 2	15	14.6
3 - 9	37	35.9
10 - 50	29	28.2
50 +	15	14.6
NR	2	1.9
Sex		
Female	49	47.6%
Male	52	50.5
NR	2	1.9
Race		
African Amer.	8	7.8%
Caucasian/White	93	90.3
Hispanic	0	0.0
Other: Asian	1	1.0
Age		
< 25	0	0.0%
25 - 34	19	18.4
35 - 44	37	35.9
45 - 54	31	30.1
55 - 64	10	9.7
65 +	3	2.9
NR	3	2.9

skills will be analyzed. Finally, analyses of the data across groups is presented. The final section of the paper indicates future directions that the Task Force intends to pursue given the major findings of this study.

2. Analyses of Workplace Know-How Skills Identified Individually by Employers

The first part of the focus group meeting involved having each participant independently list all of the workplace know-how skills that they have found to be necessary for a worker to be productive in their respective organizations. This activity may be viewed as equivalent to giving employers a survey and having them identify, in an open-ended fashion, workplace know-how skills of importance to them. As might be expected, participants listed many, many different skills. All together, participants identified 148 different skills.[4] In order to analyze these skills, the author developed a classification scheme, or taxonomy, of workplace know-how skills. This taxonomy comprises appendix B. It was necessary to develop a taxonomy that differed from the SCANS report and its characterization of know-how skills because local employers identified many skills or characteristics that were not encompassed in SCANS.[5]

A Taxonomy of Workplace Know-How Skills

The author classified the skills that employers had listed into 6 areas: **basic academic skills, personal characteristics, task achievement competencies, organizational behaviors, interpersonal skills, and job search skills**. The first set of skills—**basic academic skills**—comprise areas of cognition expected by employers. This set of skills includes the basic communication skills of reading, speaking, writing, and listening; basic mathematics such as arithmetic, measurement, the metric system, fractions, and decimals; basic fundamentals of business economics; computer literacy and facility with office equipment; mechanical aptitude and technical literacy; and other miscellaneous fields of knowledge. Following are direct quotes concerning basic academic skills from employers who participated in the study:

> *You can't be in business today if you don't know the "keyboard."*
>
> *It is amazing the number of math errors that are made daily. There seems to be an inability to analyze a situation to see that a mistake has been made.*
>
> *(It's) amazing to me how many people can't multiply and divide.*

---

[4] The 103 focus group participants identified and listed a total of 2,007 skills. The minimum number of skills listed for a participant was 6 and the maximum was 48.

[5] Note that the taxonomy that was developed differs also from all other studies that were reviewed by the Task Force. Again, this was because the responses were broader.

In many cases, you are lucky to see 6th grade levels in math skills.

(Employees) must be able to write a business letter that presents the business positively.

The skills that workers must have in our organization are speaking, writing, listening, reporting, recording, and clarifying information.

Must have basic writing skills--grammar and spelling.

Must have telephone skills. Be courteous and represent our organization to the public in a positive manner.

In listening, a worker must be able to hear, to understand, and to represent another person's point of view, without necessarily agreeing with it.

The second set of skills correspond closely to **personal characteristics** as identified by SCANS. Employers identified characteristics that could be classified under the major categories of honesty and integrity; self-confidence; creativity; trainability or commitment to learning; positive attitude; and other. The third set of know-how skills are labeled **task achievement competencies**. They represent methods or processes that individuals bring to the achievement of any given task. They are skills or attributes that can be employed in almost any work setting as well as in a learning activity. The set of skills is comprised of attendance, punctuality, and appearance; effort; flexibility; problem solving and decisionmaking; efficiency; organization and neatness; and orientation to high quality. Following are some of the things that employers had to say about personal characteristics and task achievement competencies:

Personal Characteristics

I'm finding less and less dependability.

I look for "enthusitude;" enthusiasm and good attitude.

We lose patience after we explain something several times and it still doesn't get through.

Attitude counts for a lot and . . . when you find someone with it, send him over.

If I find a person with a good attitude, I am willing to work on his/her other problems.

No second chance when it comes to honesty.

You have to have a willingness to receive new training.

Must have a sense of humor; don't take self too seriously.

No one seems to be willing to take responsibility in today's society.

Task Achievement Competencies

Being flexible enhances your successful future in our organization.

Employees need to understand how their absences affect other employees in their group.

We look for people who commit to quality control, accuracy, and honesty.

Our organization rewards people for innovative solutions to problems.

Messy office area is a bad signal to customers.

Our motto is, "if you have time to lean, you have time to clean."

The fourth set of skills concerns individual **behavior with respect to their organization** or employer. In particular, focus group participants suggested that productive workers understand and support the organization's mission; develop effective and respectful relationships with supervisors; and abide by organizational policies and procedures. The fifth set of skills define how workers relate to others, or **interpersonal skills**. In the workplace, individuals relate to two general populations—co-workers and customers. The major categories within this set are teamwork skills, customer orientation, sociability, and leadership. The sixth and final set of skills that some employers noted as important know-how skills or qualities involve **job search skills and job history** characteristics. Some relevant comments from employers follow:

Behaviors with respect to Organizations

In some instances, the disrespect for supervisors is unbelievable. This may be the single most important reason for dismissal of employees in the retail setting.

(In retail sector), people don't appreciate the need for product knowledge--they think all you need is "a line of bull."

Employees need to understand that each individual represents the whole organization.

It is important for employees to understand the global mission of the organization and their personal role—where they fit in.

Individuals must take (constructive) criticism well without holding resentment. They must "not flip out."

It is critical that workers recognize basic safety risks.

Employers expect workers to have a basic knowledge of the industry; to know the market.

Interpersonal Skills

(In health care), individuals must respect their co-workers and patients.

Workers must be able to recognize situations and resolve them without verbal violence.

Workers must be effective team players. They must have the ability to work with diverse groups and reach a consensus.

(In education), sometimes people in a service field forget who the customer is.

Leadership is important--knowing how and when to lead is as important as knowing how and when to follow.

There is nothing worse than when an applicant comes in for an interview and knows nothing about what we do.

If they can't dress neatly for the job interview, we don't talk with them.

If someone takes the time to dress in shirt and tie when they come to inquire about employment, I automatically grant an interview.

Analysis

The survey forms with the individual listings of skills were collected after each focus group, coded according to the taxonomy that was developed, and analyzed. The taxonomy comprises 148 different skills or characteristics, but not all were equally likely to be mentioned by focus group participants in their initial lists. The following summary gives a sense of the extent to which there was overlap:

- 19 items in the taxonomy were listed by a single employer
- 30 items were listed by 2 to 5 employers

- 30 items were listed by 6 to 10 employers
- 38 items were listed by 10 to 20 employers
- 31 items were listed by more than 20 employers

Table 7 arrays the 31 items that were listed by more than 20 employers and indicates what percentage of the focus group participants listed each. The particular skills that were listed most often were **attendance**, **basic math**, **verbal/speaking**, **reading**, and **writing**, all of which were listed by over half of the 103 participants. Skills or characteristics that were listed by between 40 to 50 percent of the participants were **listening**, **problem solving**, **teamwork**, **flexibility** (ability to handle multiple tasks or change priorities), and **honesty**.

In addition to listing important skills, participants provided information about themselves and their organizations. In particular, they reported employment size, their position in the organization, the number of hires per year in which they were directly involved, the percentage of workers in the organization who received their formal education or training in the local area, their gender, race, and age. These characteristics were correlated with the skills listed in order to determine whether or not there were systematic relationships between participant characteristics and particular skills. This analysis was intended to answer questions such as: Do large businesses emphasize particular skills more than small business? Do men emphasize different skills from women? Do younger employers look for particular skills or characteristics?

Table 8 presents the results of this statistical analysis. In particular, it lists for each characteristic (size of business, position in the organization, and so forth), the skills that were listed more often than would be expected from that characteristic's proportion of the sample and the skills that were listed less often than expected (differences are statistically significant). For example, males comprised 51.5 percent of the sample, but males accounted for almost 60 percent of the individuals who listed basic reading skills on their survey. About 40 percent of the individuals who listed basic reading skills were women. The statistical test indicated that the difference between men's responses and women's responses (60 versus 40) is significant, so table 8 lists basic reading skills as an item for which males listed disproportionately often.

The reader is urged to exercise caution in interpreting table 8. The table is based on simple correlations only, which leads to the following kind of problem. Because males made up a larger proportion (and females a smaller proportion) of business owners, individuals representing manufacturers, and younger individuals, it is uncertain as to whether any relationship between gender and importance of a skill is caused by gender, position in the firm, industry, or respondent age.

Table 7
SKILLS MOST OFTEN LISTED BY INDIVIDUALS

		Percent
Basic Skills		
0101	Basic reading	51.5%
0102	Basic verbal/speaking	53.4
0103	Writing	51.5
0104	Listening	49.5
0106	Telephone	31.1
0201	Basic math (+, -, X, /, fractions, decimals)	60.2
0401	Computer literacy	29.1
Personal Characteristics		
1101	Honesty	40.8
1102	Responsibility	21.4
1301	Creativity	20.4
1403	Lifelong learning; willingness to learn	28.2
1501	Positive attitude	22.3
1504	Initiative; self-starter; motivation	31.1
Individual Work Competencies		
2101	Attendance	62.1
2102	Punctuality	38.8
2104	Appropriate attire	28.2
2201	Hard work; effort ("work ethic")	22.3
2301	Flexibility	41.7
2401	Problem solving	47.6
2402	Decisionmaking; judgement	22.3
2405	Analytical skills; logic	20.4
2501	Time management	35.9
2602	Well organized	28.2
Behavior with respect to Organization		
3101	Understands & embraces mission; understands "big picture"	33.0
3202	Takes and follows directions	30.1
3301	Safety awareness	27.2
Interpersonal Skills		
4101	Teamwork skills	46.6
4102	Works well w/co-workers	38.8
4203	Service attitude	26.2
4301	Interpersonal; sociability	23.3
4303	Respects diversity	23.3

Table 8
WORKPLACE KNOW-HOW SKILLS LISTED DISPROPORTIONATELY OFTEN, BY CHARACTERISTICS OF FOCUS GROUP PARTICIPANTS

Characteristic				
Employment Size:		Larger firms		Smaller firms
	0103	Writing	0106	Telephone skills
	0201	Basic math	0108	Spelling
	0501	Mechanical ability	0202	Measurement
	1501	Positive attitude		
Position in Firm:		Owner/top mgmt.		HRD and other
	1507	Pride	0401	Computer literacy
	3106	Knowledge of industry	1101	Honesty;integrity
	4302	Conflict resolution	1401	Trainability
			2301	Flexibility
			4102	Works well w/co-workers
Number of New Hires/Year, where Respondent has Direct Involvement:		High		Low
	0501	Mechanical ability	0202	Measurement
	2102	Punctuality	0402	Keyboarding
	3103	Takes ownership	1101	Honesty; integrity
	3203	Takes criticism well	3106	Knowledge of industry
	4101	Teamwork		
	4203	Service attitude		
Percentage of Staff Formally Educated/Trained in Local Area:		High		Low
	0501	Mechanical ability	0201	Basic math
	1401	Trainability	2303	Stress mgmt.
	2103	Work availability	2602	Well-organized; neat
			3101	Supports organizations goals
			3106	Knowledge of industry
			4305	Negotiating skills
Race:		Minority		White
	1504	Initiative	0201	Basic math
	2405	Analytic skills	1102	Responsibility
	3101	Understands mission	1301	Creativity
	4303	Respects diversity	2603	Attention to detail
			3301	Safety awareness

Table 8
(Continued)

Characteristic				
Sex:		Females		Males
	0104	Listening	0101	Basic reading
	0105	Grammar	0201	Basic math
	0106	Telephone	0501	Mechanical ability
	0107	Accurate documentation	4301	Interpersonal
	0108	Spelling		
	0205	Calculator		
	0407	Office skills		
	0605	Research skills		
	1503	Enthusiasm		
	1904	Courtesy		
	2104	Appropriate dress		
	2301	Flexibility		
	2302	Multiple tasks		
	2403	Set priorities		
	2501	Time management		
	2701	Accuracy		
	3201	Respect the management		
	3203	Takes criticism well		
	3303	Follows co. policies		
	3304	Respects confidentiality		
	4103	Helps co-workers		
	4201	Customer orientation		
	4203	Service attitude		
	4303	Respects diversity		
	4305	Negotiating skills		
	5202	Job experience		
Age:		Younger		Older
	0106	Telephone	0101	Basic reading
	0107	Accurate documentation	0202	Measurement
	1101	Honesty; integrity	4304	Relates well to others
	1301	Creativity		
	2109	Own transportation		
	2403	Set priorities		
	2602	Well-organized; neat		
	3103	Takes ownership		
	3301	Safety awareness		
	3303	Follows co. policies		
	4101	Teamwork		
	4201	Customer orientation		
	4302	Conflict resolution		

Table 9 summarizes a similar kind of analysis between industrial sector and skills. For several of the (broad) industrial sectors, the table enumerates those skills that were listed more often than would be expected statistically and those that were listed less often. A caveat here is that the process of organizing the focus groups resulted in several instances where individuals from organizations in one of the sectors could not attend the meeting scheduled for that sector, but rather came to a different group. Because of the procedures that were used to protect the confidentiality of the participants' surveys, it was not possible to regroup the data by appropriate sectors. Thus the data in table 9 correlates skills with the intended sector of the focus group.[6]

The participants in the retail focus groups tended to place most importance on skills/characteristics such as trainability, enthusiasm, courtesy, appropriate dress, friendliness, and service attitude. They place less emphasis on the basic communication (reading, speaking, writing) skills.[7] The participants in the health sector placed emphasis on accurate documentation skills, attendance, punctuality, appropriate dress, respect for management, following corporate policies and procedures, and respect for confidentiality. They placed less emphasis on basic mathematics, creativity, or willingness to learn.

Participants from the education sector emphasized commitment or willingness to learn, appropriate dress, understanding the mission of the organization, teamwork skills, customer orientation, and negotiation skills. Of less importance were basic reading, attendance, or time management skills. Manufacturing representatives listed basic communication skills, measurement skills and ability to work in the metric system, business finance and economics, attendance, hard work and effort, safety awareness, and teamwork. Of lesser emphasis to manufacturers were time management skills, telephone skills, and appropriate dress.

The nonprofit and service sector representatives emphasized keyboarding, ability to transfer learning, being drug free, decisionmaking skills, setting priorities, being well-organized, and customer orientation. Of less importance were work availability, appropriate dress, hard work and effort, and understanding the overall mission. Finally, in the public sector, participants tended to list telephone skills, keyboarding, independence, attendance, and relevant past work experience. Of lesser importance were punctuality, flexibility, problem solving, or time management skills.

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[6] In perhaps half of the groups, all participants were from the "correct" sector. In the other half, 80-90 percent of the participants were from the "correct" sector.

[7] Note that placing less emphasis (i.e., mentioning a skill less often than would be expected) does not mean that the skill is not important to the respondents from organizations in that sector. This analysis is attempting to separate "more important" from "less important".

Table 9
WORKPLACE KNOW-HOW SKILLS LISTED DISPROPORTIONATELY OFTEN AND LESS OFTEN, BY INDUSTRIAL SECTOR

Sector	Listed More Frequently		Listed Less Frequently	
Retail:	1102	Responsibility	0101	Basic reading
	1401	Trainability	0102	Verbal
	1503	Enthusiasm	0103	Writing
	1904	Courtesy		
	2103	Work availability		
	2104	Appropriate dress		
	4203	Service attitude		
	4306	Friendliness		
Health Care:	0107	Accurate documentation	0201	Basic math
	1406	Self-assessment	1301	Creativity
	2101	Attendance	1403	Willingness to learn
	2102	Punctuality	3202	Takes direction
	2104	Appropriate dress		
	2402	Decisionmaking		
	3201	Respect for mgmt./chain of command		
	3303	Follows co. policies		
	3304	Respects confidentiality		
	4302	Conflict resolution		
Education:	1403	Willingness to learn	0101	Basic reading
	2104	Appropriate dress	0401	Computer literacy
	3101	Support organizational goals	1101	Honesty; integrity
	3202	Takes direction	2101	Attendance
	4101	Teamwork	2501	Time management
	4201	Customer orientation		
	4305	Negotiating skills		
Manufacturing:	0101	Basic reading	0106	Telephone
	0102	Verbal	0401	Computer literacy
	0103	Writing	2104	Appropriate dress
	0202	Measurement	2501	Time management
	0203	Metrics		
	0301	Business finance		
	1101	Honesty; integrity		
	1201	Self-esteem		
	2101	Attendance		
	2201	Effort; hard work		
	2301	Flexibility		
	3301	Safety awareness		
	4101	Teamwork		
	4302	Conflict resolution		

Table 9
(Continued)

Sector	Listed More Frequently		Listed Less Frequently	
Nonprofits/Services:	0108	Spelling	2103	Work availability
	0402	Keyboarding	2104	Appropriate dress
	1404	Transfer learning	2201	Hard work; effort
	1501	Positive attitude	3101	Support organizational goals
	2106	Drug free		
	2402	Decisionmaking		
	2403	Set priorities		
	2602	Well-organized		
	4201	Customer orientation		
Public Sector/Government:	0106	Telephone	1403	Willingness to learn
	0402	Keyboarding	2102	Punctuality
	1103	Work w/o supervision	2301	Flexibility
	2101	Attendance	2401	Problem solving
	5202	Relevant work experience	2501	Time management
			4101	Teamwork

Caveats

There are many reasons to be careful about interpreting the individual lists of skills. Since the participants were working by themselves, the terminology that they used was not standardized. Sometimes participants used different words to convey the same skill and sometimes used the same words to convey different skills. Classifying their responses required many judgements. Furthermore, the individual lists were developed after only a brief description of the purpose of the focus groups and definition of workplace know-how skills. In some cases, participants identified very specific technical skills such as an ability to operate a specific type of machine.

3. Analyses of the Focus Groups' Compilations of Workplace Know-How Skills

The next part of the meeting involved compiling the individual lists into a single list for each group. This compilation often involved group discussion and agreement about whether particular skills duplicated others that had already been listed. Furthermore the discussion and examples refined, for each group, the definition of what constituted a workplace know-how skill. Thus these compilations get around the problem of using different terms to convey the same skill (at least for each group) and also eliminated most of the job-specific skills.

The compilation processes across the 12 groups resulted in listing, at least once, a total of 113 skills from the taxonomy. (That is, a total of 35 of the skills identified by at least one individual were not added to the groups' list.) Again, considerable overlap across the groups would be expected and indeed the following distribution occurred:

- 35 of the skills/characteristics in the taxonomy did not appear in any of the groups' compilations
- 43 skills/characteristics appeared on the lists of 1 or 2 groups
- 19 skills/characteristics appeared on the lists of 3 to 4 groups
- 35 skills/characteristics appeared on the lists of 5 to 7 groups
- 16 skills/characteristics appeared on the lists of 8 or more groups

Table 10 lists the 16 skills/characteristics that were on the lists of 8 or more groups. Note that basic mathematics was on the list for every group and problem solving was on the compiled lists of all groups, except for one. Verbal skills, writing skills, honesty and integrity, and teamwork skills were on 10 group compilations.

Table 10
WORKPLACE KNOW-HOW SKILLS THAT WERE LISTED ON EIGHT OR MORE FOCUS GROUPS' COMPILATIONS

Skill		Number of Focus Groups
Basic Academic Skills		
0101	Basic Reading	9
0102	Verbal	10
0103	Writing	10
0104	Listening	8
0106	Telephone	8
0201	Basic Math	12
Personal Characteristics		
1101	Honesty/Integrity	10
1301	Creativity	8
1403	Willingness to learn	8
Task Achievement Competencies		
2104	Appropriate Dress	9
2301	Flexibility	10
2401	Problem Solving	11
2501	Time Management	8
Behaviors with Respect to Organizations		
3101	Understand and accept "big picture"	9
3301	Safety Awareness	8
Interpersonal Skills		
4101	Teamwork	10

4. Analyses of the Focus Groups' Consensuses about the Most Important Workplace Know-How Skills

Compilation of the lists took up most of the meeting time, but the last activity that took place in each focus group was a consensus building process, which was accomplished by voting. Individuals in each group were asked to vote on the 7 "most important" of the (listed) know-how skills. This voting process again honed down the list of skills. Aggregating across all focus groups, 732 votes were cast.[8] A total of 95 of the 113 skills that had been identified by the groups in the compilation activity received at least one vote as one of the "most important" skills. (Conversely, 18 of the skills that were identified by at least one group in its compilation process, received no votes as being among the 7 most important skills.)

In each group, the top vote getters were listed and identified as part of the group's consensus list of the most important skills.[9] In addition, each member of the focus group was offered the "right" to argue for the addition of one skill to the consensus list (or for the deletion of one skill). The consensus lists from the groups comprise appendix C. Of the 95 skills that received at least one vote in the process, 58 different skills were identified on at least one of the groups' consensus lists.

Table 11 provides an unduplicated listing of the 58 skills or characteristics that comprised the consensus lists and gives the number of groups for which the skill was in the consensus. The maximum number of times that a particular skill could have been in the consensus list would be 12. None of the skills, however, were in all 12 consensus lists. The table shows that basic verbal/speaking skills and teamwork skills were in the consensus list for 8 of the groups and writing skills, attendance, and customer orientation were in the consensus list for 7 groups. Half of the groups included reading, basic math, honesty and integrity, and problem solving in their consensus lists.

One way to interpret the entries in table 11 is that the skills/characteristics that are on multiple consensus lists represent workplace know-how skills that are fairly general and are probably critical to most organizations. The entries that are on consensus lists for only one or two groups are less general; they are important enough to be voted among the "most important" skills/characteristics of at least one group, but they are probably considered critical only to some organizations. The fact that there are so many entries in table 11 shows that there is considerable diversity of opinion among employers.

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[8] Some groups voted on fewer than 7 skills; some individuals voted for fewer than their group's number of skills; and some individuals voted for more than 7.

[9] In all cases, the skill received at least 3 votes from the group.

Table 11
SKILLS COMPRISING FOCUS GROUPS' CONSENSUS LISTS

		No. Groups
Basic Academic Skills		
0101	Basic reading	6
0102	Basic verbal	8
0103	Writing	7
0104	Listening	4
0105	Good grammar	1
0201	Basic math	6
0202	Measurement	2
0203	Metrics	1
0204	Making change	1
0206	Graphs/charts	1
0301	Business finances	1
0302	Economics	1
0401	Computer literacy	1
0502	Technical literacy	1
Personal Characteristics		
1101	Honesty	6
1102	Responsibility	3
1201	Self-esteem	1
1401	Trainability; ability to learn	2
1403	Willingness/interest in learning	4
1501	Positive attitude	2
1503	Enthusiasm	1
1504	Initiative	3
1507	Desire to excel; pride	1
1904	Politeness	1
Task Achievement Competencies		
2101	Attendance	7
2102	Punctuality	2
2103	Work availability	1
2104	Appropriate attire	1
2201	Hard work; effort	3
2202	productive	1
2204	Sense of urgency	2
2301	Flexibility	2
2401	Problem solving	6
2402	Decisionmaking	1
2404	Common sense	3
2405	Analytic skills; logic	1
2406	Sets goals	1
2501	Time management	2
2503	Resource management	1
2505	Aware of/controls costs	1
2602	Well-organized	2
2701	Accurate; consistent quality	2

Table 11
(Continued)

		No. Groups
Behaviors with respect to Organization		
3101	Understands and embraces mission	2
3103	Takes ownership; empowered	4
3201	Respects management/supervision	1
3202	Takes direction	1
3303	Understands and follows co. policies	1
3304	Respects confidentiality	1
Interpersonal Skills		
4101	Teamwork skills	8
4102	Works well w/co-workers	3
4201	Customer orientation	7
4203	Service attitude	2
4301	Interpersonal; socialibility	3
4303	Respects diversity	3
4304	Relates well to others	1
4401	Leadership	1
Job Search Skills/Job History		
5103	Fill out application	1
5201	Steady work history	1

5. Analyses Across Groups of the Most Important Workplace Know-How Skills

Can we come to a consensus across the groups? The wide diversity of skills and characteristics that comprised the various groups' consensus lists (as displayed in table 11) makes it difficult. If a skill or characteristic is on multiple consensus lists, say 3 or more, then it should be included in the list of skills and characteristics that comprise the consensus across groups. Skills or characteristics that were named on only 1 or 2 lists, however, may or may not represent a consensus. In some cases, such a skill or characteristic received "votes" as being one of the most important workplace know-how skills from participants in several groups, but only received enough votes to be included on a group's consensus list once or twice. In other cases, the skill or characteristic may have been "sector-dependent," and only received votes from participants in one or two groups. An argument can be made that the former transcends the groups and should be included in the overall consensus, whereas the latter should not.

Therefore we used the following decision rule to designate a consensus across groups:

- Skill received a vote as being among the most important skill from at least 10% of the focus group participants; which translates to at least 10 votes,

and

- Skill is on the consensus list of at least 2 groups

The 23 skills listed in table 12 meet these criteria. Note that the skills are listed in taxonomic order, which is not necessarily in order of their importance.

Notice that there is overlap among the tables and lists of most important skills. Many of the skills/characteristics in table 12 were also among those that were listed in the SCANS report; that were among the most important skills from the Michigan Employability Skills Task Force employer survey; that were most often listed by employers in the first focus group activity; that were on the most group compilations; and that were on the list of skills/characteristics getting the most votes for consensus. However, note also that some of the skills were absent from the other tables and arose through the compilation or voting process. Table 13 demonstrates the degree of overlap.

Among the 23 skills or characteristics listed in table 12, 5 of them are basic academic skills: the four aspects of communication—reading, writing, speaking, and listening—plus basic mathematics. Table 13 shows that the importance of these skills is reasonably consistent throughout the literature and the individual steps of this study. The exception is that the Michigan Employability Skills Task Force employer survey found relatively more emphasis on listening and speaking and less on reading, writing, and math. Otherwise there is broad agreement on the importance of these five skills. Telephone skills and computer literacy are two other skills, which are classified as basic academic skills in the taxonomy, that achieved rather broad agreement about their importance in other studies, even though they did not quite meet the criteria for table 12.[10]

Among the personal characteristics, most studies agree on the importance of honesty and integrity, responsibility, and willingness to learn (SCANS uses ability to learn). This study and the Michigan Employability Skills Task Force employer survey emphasize initiative and motivation as well.

Table 12 lists 7 items under the rubric of task achievement competencies. Here flexibility, problem solving, and time management skills are most consistently cited. The present study and the Michigan Employability Skills employer survey demonstrate the importance to employers of attendance, punctuality, and consistent accuracy or attention to quality. Interestingly, the importance of "common sense" arose through the compilation and voting process. It is not among the SCANS foundation skills or competencies, not among the Michigan Employability Skills Profile or employer survey material, nor was it listed by a significant share of employers in the first round of the focus groups.

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[10] A reviewer suggested that these skills may have been considered "job-specific" or "occupational" skills rather than workplace know-how skills.

Table 12
SKILLS THAT WERE ON AT LEAST TWO CONSENSUS LISTS AND RECEIVED AT LEAST TEN VOTES:
THE 23 MOST IMPORTANT SKILLS AND CHARACTERISTICS

Basic Academic Skills	
0101	Basic reading
0102	Basic verbal/speaking
0103	Written
0104	Listening
0201	Basic math (+,—,x,/,fractions,decimals)
Personal Characteristics	
1101	Honesty; integrity
1102	Responsible; reliable
1403	Lifelong learner, willingness to learn
1504	Initiative; self-starter, motivation
Task Achievement Competencies	
2101	Attendance
2102	Punctuality
2301	Flexibility
2401	Problem solving
2404	Common sense
2501	Time management
2701	Consistently accurate; quality concept
Behaviors with respect to Organization	
3101	Understands and embraces mission; understands "big picture"
3103	Takes ownership; empowered
Interpersonal Skills	
4101	Teamwork skills
4102	Works well with co-workers
4201	Customer orientation
4301	Interpersonal; socialibility
4303	Respects diversity

The two skills listed in the table under the heading of behaviors with respect to the organization are noticeably absent from SCANS and the Michigan Employability Skills profile. The focus group participants indicated that productive workers understand and embrace the mission of the organization and feel empowered in their jobs. The latter means workers feel like they have a share in the responsibility and management of the organization. Three other skills in this general group that are not listed in table 12, but which are important to employers according to prior studies are following company's policies and procedures, maintaining safe work practices, and respecting confidentiality.

Table 13
CROSS-COMPARISON OF SKILLS LISTED IN TABLE 12 WITH OTHER STUDIES

	Skill/Characteristic	SCANS Report	Michigan Employability Profile[a]	Mich. Emp. Skills Employer Survey[b]	CEO Symposium[c]	Table 7	Table 10
Basic Academic Skills							
0101	Basic reading	X	X		X	X	X
0102	Basic verbal	X	X	X	X	X	X
0103	Writing	X	X		X	X	X
0104	Listening	X	X	X	X	X	X
0201	Basic math	X	X		X	X	X
Personal Characteristics							
1101	Honesty; integrity	X	X	X	X	X	X
1102	Responsibility	X	X	X	X	X	
1403	Lifelong learner; willingness to learn	X	X		X	X	X
1504	Initiative; motivation			X	X	X	
Task Achievement Competencies							
2101	Attendance			X	X	X	
2102	Punctuality			X		X	
2301	Flexibility			X	X	X	X
2401	Problem solving	X	X		X	X	X
2404	Common sense				X		
2501	Time management	X			X	X	X
2701	Consistent accuracy; quality		X	X	X		
Behaviors with respect to Organization							
3101	Embraces organizational mission					X	X
3103	Takes ownership					X	X
Interpersonal Skills							
4101	Teamwork skills	X	X	X	X	X	X
4102	Works well with co-workers	X	X	X		X	
4201	Customer orientation				X		
4301	Interpersonal; socialibility	X			X	X	
4303	Respects diversity	X	X		X	X	

[a] Michigan Employability Profile reproduced in table 2.
[b] Skills/characteristics that were analyzed to be most critical to employers; listed in table 3 above.
[c] See table 4.

Finally, among interpersonal skills, studies are consistent about the importance of teamwork skills, working well with co-workers, interpersonal skills, and respecting diversity. This study brought out the importance of customer orientation.

6. Measurement and Standards for Workplace Know-How Skills

Assessment and Measurement

It is one thing to have employers identify the workplace know-how skills and personal characteristics that are valued and it is quite another to determine means of measuring these attributes. It is even more difficult to achieve a consensus on standards for the skills or characteristics. Nevertheless, the Task Force attempted to motivate focus group participants to indicate measurable standards for the skills by having them report a "standard" for each skill that they listed on their individual survey forms and for each skill that they nominated for the group's compilation.

Employers felt that some items could be easily measured through a formal test or assessment, whereas other items were more difficult, if not impossible, to measure. In between these extremes were skills or characteristics that could be demonstrated by particular actions and skills or characteristics that could be assessed by direct measurement of productivity.

In short, analyses of the data that we collected suggested six methods of measurement. These methods were:

- paper and pencil achievement tests
- performance tests (e.g., typing tests)
- events regularly monitored by employers (e.g., attendance, accidents)
- productivity measures (e.g., customer complaints, on-time shipments)
- demonstrations of skills/characteristics through documentation of specific actions (e.g., as part of an employability portfolio, workers document incidents that demonstrate problem solving, time management, or attention to detail)
- subjective assessments by third party

These assessment methods are ordered in terms of their quantitativeness and rigor.[11] Generally, participants felt that the basic academic skills could and should be assessed by achievement or performance tests. Some employers felt that problem solving was a know-how skill that could be formally tested or could be demonstrated by documenting specific actions on the job.

Regular employer monitoring of employees could generate measures for a number of skills/characteristics: incidents of tardiness or absences measure punctuality and attendance, attendance at formal training measure willingness to learn, incidents of theft measure honesty and integrity, and number and type of accidents measure adherence to safety. Employers indicated that the only way to measure some skills/ characteristics was to track productivity. For example, teamwork skills could be measured by on-time shipments by a production team or by scrap rates for the team. Customer orientation and service attitude could be measured by customer complaints. Accuracy and attention to detail could be measured by scrap or re-work rates.

For many of the workplace know-how skills, employers acknowledged that the best way to assess the skill was through documentation of a specific action. Flexibility, problem solving, common sense, time management, accuracy and quality, understanding and embracing the organizational mission, teamwork skills, customer orientation, and respecting diversity are among the skills that could be measured by having workers document specific instances that demonstrate the skill. Finally, with every skill or characteristic, it is possible to get a coworkers' or supervisor's subjective opinion about level of attainment or competency.

Standards

Beyond the problem of identifying methods to measure workplace know-how skills is the process of establishing standards of performance. The Task Force attempted to get focus group participants to enumerate the minimum standards used in their organizations. Employers were told that the standards should be such that performance below these standards would jeopardize an employee's job. Table 14 lists the skills that seemed to best lend themselves to measurement and specific standards. The top panel of the table lists skills where there was wide agreement about standards and the bottom panel lists skills where agreement about standards was less universal.

For basic academic skills, employers generally use successful completion of high school courses as their measure (presumably verified by transcripts). In general, it is fair to say that employers could not articulate precisely their required levels of basic skills attainment. They assumed that if individuals completed successfully courses in high school,

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[11] Subjective assessments may provide the most valuable information if they are accurate and unbiased. However, the accuracy and lack of bias are conditional on identifying a knowledgeable individual who is willing and able to give an accurate assessment and on the questions asked of the individual.

Table 14
WORKPLACE KNOW-HOW SKILLS, MEASURES, AND STANDARDS

Skill		Measure	Minimum Standard
		High Level of Agreement Among Employers	
0101 0103 0105 0108 0201	Basic reading Writing Grammar Spelling Basic math	-- Completion of high school courses -- Performance on achievement test	-- At least 10th or 11th grade English and math
2101	Attendance	-- Percentage of days scheduled to work for which individual does attend	-- At least 95% (about 1 absence/month)
2102	Punctuality	-- Number of tardiness incidents within first few months on the job	-- At most 2
1101	Honesty; integrity	-- Number of incidents of theft or cheating	-- At most 0
3304	Respects confidentiality	-- Number of breaches of confidentiality	-- At most 0 (or 1)
2104 2105	Appropriate dress Personal hygiene/ cleanliness	-- Number of incidents with inappropriate dress or hygiene	-- (For applicants) at most 0 -- (For employees) at most 1-2
0402	Keyboarding	-- Typing speed	-- At least 40 wpm (net)
0104 1401 3202	Listening Trainability Follows directions	-- Number of times that directions for a given task have to be repeated	-- At most 1-2 repetitions
		Standards Mentioned by Small Number of Employers	
0301 0302 0305	Business finances Economics Business law	-- Completion of high school courses	-- At least 1 semester
0202	Measurement	-- Ability to use a ruler	-- Measurements to at least 1/32nd of "
2501	Time management	-- Percentage error in time estimation for completing a task	-- At most $\pm$ 20%
3201	Respects supervision/ management	-- Number of incidents in which disrespect is shown	-- At most 1-2

Table 14
(Continued)

Skill		Measure	Minimum Standard
3301	Compliance with company policies and procedures	-- Number of incidents of noncompliance	-- At most 0
4101	Teamwork	-- Number of times that personnel reassignments must be made	-- At most 1
4203	Service attitude	-- Number of customer complaints	-- At most 2
5201	Exhibit steady work history	-- Duration of previous job(s)	-- Unless young person, at least 12 months

they must have the skills. A number of employers indicated that they have been disappointed with the actual skill levels of labor market entrants, however, even when they had completed appropriate high school courses, and these employers have begun applicant screening using existing or customized tests. Different employers had slightly different performance standards for keyboarding; but the modal response was that individuals assessed on this skill must have a minimum of 40 wpm (net).

Some employers indicated that their standards for poor attendance and tardiness depended on the overall "tightness" of the labor market to some extent. When the labor market is tight, i.e., when unemployment is low, standards are reported to be more lax. The measure that many employers use for attendance is the percentage of days for which the worker is scheduled that the worker actually comes to work.[12] Employers seemed to agree that the minimum standard was around 95% (which is about 1 absence/month). Employers felt that the first few months of employment was the time period when they monitored tardiness most closely. Employers felt that 3 or more incidents of tardiness during this time period would jeopardize employment.

Honesty and respecting confidentiality can be measured by incidents of dishonesty and breaches of confidentiality. Employers had little tolerance for either. Employers uniformly indicated that they had zero tolerance for theft or cheating (such as falsifying time cards) and for breaches of confidentiality. (Some employers indicated that the first breach of confidentiality may be dealt with through disciplinary measures short of dismissal).

[12] The "cost" to an employer of experiencing an absence is reallocating work or finding a replacement on short notice. Thus vacations were not considered an absence as long as they were scheduled ahead of time. Illnesses, however, were considered to be absences.

A measure for appropriate dress and personal hygiene would be incidents in which an individual was not attired appropriately or had not exhibited appropriate personal hygiene. Employers indicated that the standard that they held for job applicants was zero tolerance (that is, jobs are offered only to applicants who are appropriately dressed and clean). Employers reported themselves to be somewhat more lenient with existing workers, for whom 1 or 2 incidents would be dealt with through disciplinary or supervisory measures. However beyond that, employment would likely be terminated.

The final skill listed in the top panel of table 13 is listening or following directions. Employers indicated that repeating directions for a (fairly simple) task[13] once or twice was a reasonable standard, but having to repeat directions more often than that was not acceptable.

The lower panel in the table gives measures and standards that were mentioned by one or two participants, but which were not discussed fully in the focus groups. They thus may or may not represent employer opinion in general.

7. Recommendations and Future Actions

Members of the EFE Task Force reviewed findings from several recent national, state, and local studies of employability skills and conducted a focus group process designed to validate those findings for the local labor market. Through this process, the Task Force discovered that local employers feel there are many different skills and personal characteristics that are important contributors to productivity in the workplace. But among these skills and characteristics, there are about two dozen that were identified as the "most important." As might be expected, these two dozen overlap considerably with findings from prior studies.

Part of the reason for forming the EFE Outcomes Task Force was the sense among many groups in the community that there exists a "skills gap" in the Kalamazoo and St. Joseph County labor market. The basic skills that employers expect are not matched by the skills that applicants possess. This perception was confirmed in the employer focus groups, where participants not only identified important workplace know-how skills, but also indicated that many job applicants and workers that they encountered lacked these skills.

After conducting this study, the challenge that the Task Force finds itself confronting is how to improve the system and narrow the "skills gap." Can local education and training providers, K-12 systems, postsecondary institutions, and second-chance programs, improve curricula or instructional methods to better impart workplace know-how skills to individuals being prepared for the labor market? Can local business and industry become more involved in articulating needs and standards and assist education and training providers? The first step

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[13] One focus group defined this to be a task with 4-5 steps.

in answering these questions is to determine what education and training providers are currently doing. Thus coincident with this study, the Task Force is preparing an inventory of area education and training programs. This inventory is examining curricula and instructional practices offered by local providers to determine the extent to which workplace know-how skills are present.

After the inventory is completed and analyzed, the Task Force intends to bring together employers and educators and trainers to work on implementing a system that addresses these skills. Options range from facilitating dialog between the staffs from the institutions that prepare individuals for work and employers to a portfolio or passport system, in which labor market participants provide certified evidence of the attainment of particular skills or characteristics. In any case, the task force is convinced that little change to the status quo can be affected without the active involvement and support of both educators and trainers and employers.

APPENDIX A

Workplace Know-How Skill Individual Survey

ID _ _ _ _

EFE Outcomes Task Force

Identification of Workplace Know-How Skills

We are interested in knowing what **workplace know-how skills** your firm/ organization expect from recently-hired workers or individuals seeking employment. We use the term "workplace know-how skills" to differentiate from purely academic knowledge such as calculus, Japanese, or 14th century European history and from specific technical skills such as operating a lathe, key entry of data, or operating an x-ray machine.

Please list below **all** workplace know-how skills that contribute to a worker's productivity in your firm/organization. Also, to the extent that you can, please indicate the standards that you employ for these skills. For example, if you were to list "maintain technology" as a workplace know-how skill, then the standard might be "read and comprehend instruction manuals provided with technology."

	Workplace Know-How Skill	Standard
1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____
5.	_____	_____
6.	_____	_____
7.	_____	_____

8. _____ _____

9. _____ _____

10. _____ _____

11. _____ _____

12. _____ _____

13. _____ _____

14. _____ _____

15. _____ _____

16. _____ _____

17. _____ _____

18. _____ _____

19. _____ _____

20. _____ _____

21. _____ _____

22. _____ _____

ID _ _ _ _ _

23. _____ _____

24. _____ _____

25. _____ _____

26. _____ _____

27. _____ _____

28. _____ _____

29. _____ _____

30. _____ _____

31. _____ _____

32. _____ _____

33. _____ _____

34. _____ _____

35. _____ _____

36. _____ _____

37. _____ _____

38. _____ _____

39. _____ _____

40. _____ _____

41. _____ _____

42. _____ _____

43. _____ _____

44. _____ _____

45. _____ _____

46. _____ _____

47. _____ _____

48. _____ _____

49. _____ _____

50. _____ _____

When you finish listing skills, please complete the (brief) personal survey on the last page of this package.

ID _ _ _ _

Part of our mission is to analyze individuals' responses to see if there are systematic relationships between the lists that are generated and the characteristics of group participants. All data will be **confidential**.

1. Approximately how many workers are employed by your firm/organization? (Do not include temporary agency workers; do include part-time workers and do include all locations).

< 10	___	100-249	___
10-19	___	250-499	___
20-49	___	500 +	___
50-99	___		

2. What is your position in the firm/organization?

Management, except for HRD	___
Human Resources Department, manager or staff	___
Supervisor	___
Other	___

3. For approximately how many new employees <u>per year</u>, would you have some responsibility in the hiring process?

0	___	10-50	___
1-2	___	50 +	___
3-9	___		

4. Approximately, what percentage of your employees received their formal education or training in the Kalamazoo/St. Joseph County area?

___ %

5. What is your sex? M ___ F ___

6.	Race/ethnicity?	African American/Black	___
		Caucasian/White	___
		Latino/Hispanic	___
		Other	___

7.	Age?	<25 ___	45-54 ___
		25-34 ___	55-64 ___
		35-44 ___	65 + ___

APPENDIX B

Taxonomy of Workplace Know-How Skills

Taxonomy of Workplace Know-How Skills

Basic Academic Skills

- 01 Communication
- 02 Mathematics
- 03 Business Finance; Economics
- 04 Computer/Office Machinery
- 05 Machinery/Mechanical Ability
- 06 Other Subject Matter

Personal Characteristics

- 11 Honesty; Integrity; Responsibility
- 12 Self-esteem; Self-respect
- 13 Creativity
- 14 Trainability; Commitment to Learning
- 15 Positive Attitude
- 16 Independence
- 19 Other

Task Achievement Competencies

- 21 Attendance and Punctuality; Appearance
- 22 Effort; Productivity
- 23 Flexibility
- 24 Problem Solving; Decisionmaking
- 25 Efficiency
- 26 Organization; Neatness
- 27 Quality Orientation

Behaviors with respect to Organization

- 31 Understands/supports mission
- 32 Relationship to supervisor
- 33 Abides by Regulations & Policies

Interpersonal Skills

- 41 Teamwork
- 42 Customer/Marketing
- 43 Interpersonal
- 44 Leadership

Job Search Skills/Job History

- 51 Interviewing/Application Skills
- 52 Job History

Basic Academic Skills

01 Communication

- 0101 Basic reading
- 0102 Basic verbal/speaking
- 0103 Writing
- 0104 Listening
- 0105 Good grammar usage (avoidance of slang; foul language)
- 0106 Telephone skills/etiquette
- 0107 Accuracy in documentation
- 0108 Spelling
- 0109 Other, n.e.c. (penmanship, tell time, time cards)

02 Mathematics

- 0201 Basic math (+, -, x, /, fractions, decimals)
- 0202 Measurement
- 0203 Metrics
- 0204 Making change
- 0205 Use calculators
- 0206 Graphs/charts
- 0209 Other, n.e.c.

03 Business Finance; Economics

- 0301 Business finances (p&l; cost acctg.)
- 0302 Economics
- 0303 Work with budgets (personal or business)
- 0304 Purchasing experience
- 0305 Business law

04 Computer Literacy/Office Machinery

- 0401 Computer literacy
- 0402 Keyboarding
- 0403 Software
- 0404 Hardware
- 0405 Office machines
- 0406 Cash registers (POS systems)
- 0407 Office skills (filing, typing, message taking)

05 Machinery/Mechanical Ability

- 0501 Mechanical ability
- 0502 Technical literacy
- 0503 Using tools/machinery appropriately
- 0504 Statistical process control (SPC)
- 0509 Other, n.e.c. (inc. blueprint reading)

06 Other Subject Matter/Technical Knowledge

- 0601 Good grades
- 0602 Geography
- 0603 Scientific principles
- 0604 Artistic/display ability
- 0605 Research skills; information retrieval; look for information
- 0609 Other, n.e.c. (inc. specific educational credentials)

Personal Characteristics

11 Honesty; Integrity; Responsibility

- 1101 Honesty; integrity
- 1102 Responsible; reliable
- 1103 Can work without supervision
- 1104 Trustworthy
- 1105 Admit mistakes; don't hide them; accountability
- 1106 Fairness

12 Self-esteem; self-respect

- 1201 Self-esteem; self-respect
- 1202 Self-control
- 1203 Self-confidence

13 Creativity

- 1301 Creativity
- 1302 Intuition

14 Trainability; Commitment to Learning

- 1401 Trainability; knowing how to learn
- 1402 Career development
- 1403 Lifelong learner; willingness to learn; interested in learning
- 1404 Able to transfer learning
- 1405 Interesting in/participates in cross-training
- 1406 Learn from mistakes; self-assessment

15 Positive Attitude

- 1501 Positive Attitude
- 1502 Doesn't make unnecessary complaints
- 1503 Enthusiasm; energy; hustle
- 1504 Initiative; self-starter; motivation
- 1505 Sense of humor
- 1506 Ambitious
- 1507 Desire to excel; pride
- 1508 Assertive

19 Other

1901 Patience
1902 Maintains health; physical strength to perform
1903 Memory
1904 Polite; well-mannered
1905 Adult behavior; no horseplay
1906 Personal life — free of problems
1907 Desire to help others; giving
1908 Risk taking
1909 Other (inc. courage, optimism)

Task Achievement Competencies

21 Attendance and Punctuality; Appearance

- 2101 Attendance
- 2102 Punctuality
- 2103 Work required hours; availability
- 2104 Appropriate attire
- 2105 Personal hygiene/cleanliness
- 2106 Drug free
- 2109 Other, n.e.c. (transportation, driver's license)

22 Effort; Productivity

- 2201 Hard work; effort
- 2202 Productive
- 2203 On task; keep personal business out of workplace
- 2204 Appreciation of necessity of hard work; sense of urgency; see job as opportunity
- 2205 Stick-to-itiveness; persistence

23 Flexibility

- 2301 Flexibility
- 2302 Able to handle multiple tasks
- 2303 Stress management
- 2304 Open to change

24 Problem Solving; Decisionmaking

- 2401 Problem solving
- 2402 Decision making; judgement
- 2403 Set priorities; making lists
- 2404 Common sense
- 2405 Analytical skills; logic
- 2406 Sets goals/objectives for self; goal-oriented
- 2407 Asks questions appropriately
- 2408 Troubleshooting; diagnosing
- 2409 Planful; plans ahead

Task Achievement Competencies
(Cont'd)

25 Efficiency

- 2501 Time management
- 2502 Time lines
- 2503 Don't waste resources
- 2504 Energy efficient
- 2505 Aware of and controls costs

26 Organization; Neatness

- 2601 Keeps work station neat; clean
- 2602 Well-organized
- 2603 Attention to detail; observant

27 Quality Orientation

- 2701 Accurate; consistent quality
- 2702 Thorough; follows-up
- 2703 Accepts quality concept; has goal of 100%

Behaviors with respect to Organization

31 Understands/Supports Mission

- 3101 Understands and embraces organization's mission; understands "big picture"
- 3102 Identifies/supports goals; loyalty
- 3103 Takes ownership; empowered
- 3104 Finds work to do, when necessary
- 3105 Product knowledge; terminology; job knowledge
- 3106 Industry knowledge; terminology
- 3107 Makes suggestions; looks for improvement

32 Relationship to Supervisor

- 3201 Respects supervision/management; understands chain of command
- 3202 Takes and follows directions
- 3203 Takes constructive criticism

33 Abides by Rules/Regulations

- 3301 Safety awareness
- 3302 Awareness/support of regulations affecting organization
- 3303 Understands and follows company policies and procedures
- 3304 Respects confidentiality

Interpersonal Skills

41 Teamwork

- 4101 Teamwork skills
- 4102 Works well with co-workers
- 4103 Helps co-workers; willing to train/teach

42 Customer/Marketing

- 4201 Customer orientation
- 4202 Able to empathize with customer; tolerance
- 4203 Understands importance of customer; service attitude
- 4204 Marketing skills
- 4205 Sales

43 Interpersonal Skills

- 4301 Interpersonal; socialibility
- 4302 Conflict resolution
- 4303 Respects diversity
- 4304 Relates well to others; supportive
- 4305 Negotiating skills
- 4306 Friendliness
- 4307 Tact; diplomacy

44 Leadership

- 4401 Leadership skills; how to lead and how to follow
- 4402 Motivator
- 4403 Management capability

Job Search Skills/Job History

51 Interviewing/Application Skills

- 5101 Shows interest in working
- 5102 Interviewing skills
- 5103 Fill out application completely and accurately

52 Job History

- 5201 Steady work history; want to hold job for a long time
- 5202 Relevant job experience (inc. cash handling experience)

APPENDIX C

Focus Group Consensus Lists

Focus Group Consensus Lists

Focus Group and Date	Most Important Workplace Know-How Skills
Retail 11/9/93	Listening Seeing job as opportunity Communication Trainability Flexibility Being well-organized Grammar Basic math Initiative Logic/common sense Time management Enthusiasm
Retail 11/11/93	Teamwork Honesty Work ethic Attendance Taking ownership Interpersonal skills Customer orientation Flexibility Problem solving
Services 11/12/93	Attendance Basic math Punctuality Honesty; integrity Teamwork Basic reading Technical literacy Interpersonal skills Decisionmaking Initiative Taking ownership Willingness to learn

Focus Group and Date	Most Important Workplace Know-How Skills
Health 11/16/93	Problem solving; critical thinking Attendance Teamwork Willingness to serve Respect for organizational policies Respect confidentiality Job application skills Being well-organized Appropriate dress Flexibility Dependability; accountability Honesty Efficient use of resources Writing Communication: speaking, listening
Nonprofit Organizations 11/18/93	Attendance Honesty; integrity Productivity Time management Respects diversity Courtesy Listening
Education 11/19/93	Verbal/speaking Writing Working well with co-workers Problem solving Positive attitude Customer orientation Teamwork
Small Manufacturing 11/23/93	Reading Basic math Measurement Verbal/speaking Writing Work ethic Dependability Teamwork Interpersonal; socialibiliity Problem solving

Focus Group and Date	Most Important Workplace Know-How Skills
Manufacturing and Nonprofits 12/3/93	Sensitivity to others Quality Attendance Problem solving Willingness to learn Basic math Verbal communication: speaking and listening Teamwork Measurement Responsibility Goal orientation Following directions Customer orientation Economics
Public Sector 12/7/93	Interpersonal skills; interaction w/public Basic math Writing Attendance Common sense Time management Respect for supervision/management Reading Trainability Desire to work; productivity Leadership
Services 12/9/93	Logic Belief in excellence Common sense Taking ownership Reading Honesty Basic verbal Writing Customer service Positive attitude Computer literacy; keyboarding Ability to learn Teamwork Keeping personal life free of problems

Focus Group and Date	Most Important Workplace Know-How Skills
Mixed Sectors 1/11/94	Teamwork Writing Verbal/speaking Honesty Attendance Customer orientation Basic math Understand and embrace organization's "big picture" Ability to learn Cooperation Initiative Business finances; accounting Responsibility Respect diversity
Mixed Sectors 1/13/94	Listening Writing Problem solving Teamwork Respect diversity Reading Self-esteem Work process Customer orientation Accuracy/quality Verbal/speaking Work ethic

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EDUCATION FOR EMPLOYMENT OUTCOME TASK FORCE

The mission of the Education for Employment Outcomes Task Force is to identify and communicate the workplace know-how skills expected by employers in the local labor market and to devise implementation strategies to help potential labor market entrants develop these skills through education and training.

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